REMARKS/ARGUMENTS

Claims 21-29 are active in this application.

Support for the amendment to Claim 21 is found on page 5, line 25.

No new matter is believed to have been added by these amendments.

As set forth in the amended claims, the invention is directed to a method of treating organic pollution on a glass substrate including a photocatalytic titanium dioxide layer, by treating the substrate with an electrical treatment or a flame treatment to remove at least silicone pollution from the substrate. As discussed in the specification on page 2, 2nd paragraph, the formation of organic pollution on the surface of the glass substrate can degrade its performance and can also reduce the quality of visibility through the glass substrate.

The inventors have found that by treating the glass substrate with electrical or flame methods the organic pollution on the substrate can be reduced and/or eliminated such that the substrate can be regenerated to their state prior to the formation of the pollutant on the substrate (see page 2, last paragraph). Moreover, with textured substrates (see Claim 27), the surface morphology can also be retained, even in instances with fine features (see page 2, last paragraph).

It is respectfully submitted that the prior art cited in the Official Action fail to teach or suggest the method as claimed herein.

The Examiner has rejected the claims as being obvious in view of the disclosures of Boire, Nakada with either Morgan or Dunoyer.

Boire describes a titanium dioxide containing laminate but does not teach removing silicone pollution.

Nakada teaches applying a silicone sealant between glass panels and to protect the glass from the silicone oils, the glass panel is covered with a photocatalytic coating, such as titanium dioxide (see §8 of Nakada). As stated in the "Constitution" section of the document provided, Nakada also appears to describe employing a photocatalytic.

Morgan is cited for the flame treatment and Dunoyer is cited for the electrical discharge treatment. Morgan and Dunyoer do not describe cleaning silicone or with cleaning a glass substrate with photocatalytic TiO_2. Notwithstanding these issues in the prior art cited, the rejections allege that it would have been obvious to use the methods in Morgan or Dunoyer to remove the residue left by the silicon sealant applied to the Boire or Nakada titanium dioxide containing substrate.

This is an incorrect presumption for two main reasons.

First, Boire and Nakada therefore teach glazings that are also self cleaning and therefore the solution each provides is photocatalytic titanium dioxide to achieve a clean substrate. Therefore, according to Boire and Nakada there is no need to clean a self-cleaning glazing of pollutants. Moreover, neither Boire nor Nakada discuss the build-up of organic pollutants that occur even when titanium dioxide is included in glass. Indeed, as has been discussed in the specification, the inventors have discovered that contrary to the prior knowledge, e.g., from Boire and Nakada, the presence of photocatalysis with, e.g., TiO_2, is not sufficient to clean the glazings with silicone oils. Therefore, this prior art, without the knowledge imparted by the inventors, would not have suggested to one that silicone pollution would be problematic even in TiO_2 containing glazings and that further treatment was necessary.

Second, Morgan and Dunyoer both teach treatment or cleaning the glass prior to the deposition of the thin layer of glass and do not suggest the treatment of a glass substrate after deposition of a photocatalytic TiO_2 layer. Therefore, presuming that the art would have been combined as alleged by the Office, one would have used the Morgan and/or Dunyoer methods to treat a layer prior to depositing the layers of Boire or Nakada, which is fundamentally different from what is claimed in this application.

Finally, the references would not have been combined because each is directed to their own way of achieving clean glass (TiO_2 photocatalysis in Nakada and Boire) or pretreatments (Morgan and/or Dunyoer) and there would have been no reason to combine them absent the present claims and specification as a guide.

In view of the above discussion, Applicants request that both rejections be withdrawn.

An Information Disclosure Statement is filed to submit JP2001-259515 which was cited in a corresponding European application, EP 1470090.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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